

## Monitoring on Japanese markets

### Abstract:

This document, which is an updated version of CCSBT-CC/0810/21, provides results of the market monitoring, including the monthly monitoring of the Tsukiji Market. By inputting the updated market information into the methodology used in the Independent Review of Japanese SBT Market Data Anomalies (JMR) report, the estimated domestic catch based on the domestic market information was calculated. Consequently, it is concluded that differences is negligible between the estimated domestic catch and reported domestic catch.

### 要旨:

本ドキュメントは、CSBT-CC/0810/21 をアップデートしたものであり、築地市場における毎月のモニタリングを含む、市場モニタリングの結果を提供するものである。ミナミマグロ資本市場データの不調和に関する独立レビュー（JMR）報告書が用いている方法に、市場に関する最新の情報を入力して、市場情報に基づく推定国内漁獲量を算出した。その結果、市場情報に基づく推定国内漁獲量と報告漁獲量の差は無視できるものと結論づけられる。

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### **1. Background:**

Japan changed its domestic regulations for SBT fisheries in April 2006. The new domestic regulations include 100% landing inspection by government officials, establishment of 8 designated ports for SBT landing, tagging requirement for individual SBT caught, and prohibition of selling or buying illegally caught SBT. These regulations are strong enough to ensure the accuracy of Japan's reported catch; nonetheless, Japan has been conducting the market monitoring and presenting its results (i.e. CCSBT-CC/0810/21) to the CCSBT in order to provide further assurance regarding domestic SBT fisheries management.

Furthermore, at the CCSBT 15, "Australia and Japan expressed their intention to work for improvement of monitoring of Japanese wholesale markets and Australian SBT farming operations and report back the results to the 16th Extended Commission Meeting. The Extended Commission welcomed this cooperative initiative. Members agreed on the need to work cooperatively in order to clarify the actual global SBT catch to the greatest extent possible." (See paragraph 17 and 18 of the CCSBT 15 report)

### **2. Market information and methodology used in this document:**

#### (1) In-Market Frozen Farmed SBT:

Japan obtained updated information on in-market frozen farmed SBT between 2005 and 2008 from wholesalers in the Tsukiji Market. The following ratio, which is based on the information from the

wholesalers, is used to estimate domestic catch based on information from the domestic market in this document.

Year	Ratio
2005	12.66% (Information from the wholesalers)
2006	15.50% (Information from the wholesalers)
2007	32.37% (Information from the wholesalers)
2008	35.64% (Information from the wholesalers)
2009	35.64% (same as for year 2008)

(2) In-Market Frozen Wild imported SBT:

Japanese government officials and scientists have been visiting the Tsukiji market once a month since December 2007 in order to obtain information on (a) time lag of SBT caught by Japanese longline vessels between catching and selling at the market and (b) in-market frozen wild imported SBT. Japanese government officials and scientists visit the Tsukiji market around 4 AM on Friday once a month. It has been decided to conduct this monitoring on Friday, because the volume of SBT sold at the Tsukiji market on Friday is generally larger than on any other days of week. Detailed results of the monthly monitoring of the Tsukiji Market are described in Attachments 4 and 5. Attachment 4 shows the ratio of domestic and imported frozen wild SBT, and the following ratio is used to estimate domestic catch based on information from the domestic market in this document.

Year	Ratio
2005	5% (same as for the JMR report)
2006	12.02% (Linear interpolation with 2005, 2007, 2008, and 2009 ratio)
2007	16.85% (Information from the monitoring at the Tsukiji Market)
2008	30.48% (Information from the monitoring at the Tsukiji Market)
2009	37.89% (Information from the monitoring at the Tsukiji Market)

(3) Time lag of SBT caught by Japanese longline between catching and selling at fish market:

The tagging requirement for individual SBT when caught enables a direct calculation of the time between capture by Japanese longline vessels and sale at the market. The first results using this approach were given last year's Extended Scientific Committee meeting (CCSBT-ESC/0809/40). However, the first results were based on relatively few data (829 individual tag data), and the continuing monthly monitoring has provided a much larger data (1859 individual tag data). The results shown in Appendix 5 are based on the larger data and more reliable than those provided last year. The following formula, which is based on the larger data, is used to estimate domestic catch based on information from the domestic market in this document.

$$\text{SBT distributed (sold) Market Year (i)} = 0.1\% \text{ caught in year (i-3)} + 7.7\% \text{ caught in year (i-2)} + 66.8\% \text{ caught in year (i-1)} + 25.4\% \text{ caught in year (i)}$$

(4) Double counting ratio for 2006-2009:

This document uses average double-counting ratio from 2003 to 2005 in the JMR report (Case 1=11.82%, Case 2=4.35%) for 2006 to 2009.

		Case 1	Case 2
Year	2003	11.80%	4.54%
	2004	12.27%	4.44%
	2005	11.39%	4.06%
	<u>Average</u>	<u>11.82%</u>	<u>4.35%</u>

(5) Details of calculation:

Regarding other factors, such as off-market domestic wild SBT, this document uses the methodology which has been used in the JMR report. Details of calculation are included in Attachments.

### **3. Result and conclusion:**

By inputting the abovementioned updated market information into the methodology used in the JMR report, the estimated domestic catch based on the domestic market information was calculated. Consequently, it is concluded that differences is negligible between the estimated domestic catch and reported domestic catch.

	2005		2006		2007		2008	
	Case 1	Case 2	Case 1	Case 2	Case 1	Case 2	Case 1	Case 2
1. Estimated domestic catch based on domestic market information (See Attachment 1, whole weight)	8,554	9,419	5,059	5,669	3,186	3,630	2,925	3,341
2. Reported domestic catch including NZ/Japan Joint Venture (whole weight)	7,942	7,942	4,312	4,312	3,054	3,054	3,152	3,152
3. Differences (1.-2.)	612	1,477	747	1,357	132	576	-227	189

Note: Following the CCSBT Rules of Procedure 10.8, the release of this document outside the CCSBT shall be restricted.

## Attachment 1

Calculation of Japanese domestic LL SBT catch by year using catch/market lag formula

See attachment 5: SBT distributed (sold) Market Year (i) = 0.1% caught in year (i-3) + 7.7% caught in year (i-2) + 66.8% caught in year (i-1) + 25.4% caught in year (i)

### Case 1 (Double Count 11.82%)

Market Year (i)	Total domestic caught SBT distributed in Japan and exported (see attachment 2)
2005	10,686
2006	8,265
2007	4,096
2008	2,868
2009 (Estimated)	2,949
2010 (tentative, same as 2009)	2,949

i-3 (0.1%)	Year of Catch	i-2 (7.7%)	Year of Catch	i-1 (66.8%)	Year of Catch	i-0 (25.4%)	Year of Catch
11	2002	823	2003	7,139	2004	2,714	2005
8	2003	636	2004	5,521	2005	2,099	2006
4	2004	315	2005	2,736	2006	1,040	2007
3	2005	221	2006	1,916	2007	728	2008
3	2006	227	2007	1,970	2008	749	2009
3	2007	227	2008	1,970	2009	749	2010

### Estimate of Japanese domestic Longline catch using catch/market lag formula

Year	Total domestic caught SBT distributed in Japan and exported (see attachment 2)
2005	8,554
2006	5,059
2007	3,186
2008	2,925

### Case 2 (Double Count 4.35%)

Market Year (i)	Total domestic caught SBT distributed in Japan and exported (see attachment 2)
2005	11,712
2006	9,107
2007	4,641
2008	3,276
2009 (Estimated)	3,368
2010 (tentative, same as 2009)	3,368

i-3 (0.1%)	Year of Catch	i-2 (7.7%)	Year of Catch	i-1 (66.8%)	Year of Catch	i-0 (25.4%)	Year of Catch
12	2002	902	2003	7,824	2004	2,975	2005
9	2003	701	2004	6,083	2005	2,313	2006
5	2004	357	2005	3,100	2006	1,179	2007
3	2005	252	2006	2,188	2007	832	2008
3	2006	259	2007	2,250	2008	855	2009
3	2007	259	2008	2,250	2009	855	2010

### Estimate of Japanese domestic Longline catch using catch/market lag formula

Year	Total domestic caught SBT distributed in Japan and exported (see attachment 2)
2005	9,419
2006	5,669
2007	3,630
2008	3,341

## Attachment 2

Calculation of total Japanese (Domestic) wild SBT distributed in Japan and exported from 2005 to 2009 (Metric Tones) using methodology from the Independent Review of Japanese SBT Market Anomalies Report (JMR)

(Unit: MT)

	Year 2005		Year 2006		Year 2007		Year 2008		Year 2009	
	Case 1	Case 2	Case 1	Case 2	Case 1	Case 2	Case 1	Case 2	Case 1	Case 2
A. Tokyo Market amount	7,648	7,648	6,722	6,722	4,543	4,543	3,974	3,974	4,650	4,650
B. Yaizu market amount	946	946	756	756	575	575	613	613	629	629
1. Total In-Market Frozen SBT (MW) = (A+B)/0.79 (Estimate using 2005 Tokyo and Yaizu auction sales 79% of total Japanese auction sales, see page 47 of JMR report)	10,878	10,878	9,466	9,466	6,479	6,479	5,806	5,806	6,681	6,681
2. In-Market Frozen Farmed SBT	1,377	1,377	1,467	1,467	2,097	2,097	2,069	2,069	2,381	2,381
3. Double Count: Case 1=11.82%, Case 2=4.35%	1,240	442	1,119	412	766	282	686	253	790	291
4. In-Market Frozen Wild Imported SBT = (1.-2.-3) x (Info in Attachment 4)	413	453	827	912	609	691	930	1,062	1,330	1,519
5. Tokyo Fresh Domestic SBT (Est. Same figure as for JMR 2005)	1	1	1	1	1	1	1	1	1	1
6. In-Market Domestic Wild Frozen SBT = 1.-2.-3.-4.-5.	7,847	8,605	6,052	6,674	3,006	3,408	2,120	2,421	2,179	2,489
7. Off-Market Domestic Wild SBT = 6./85%x15% (JMR adopted 15% for off-market frozen SBT sales as a percentage of total domestic wild SBT distributed in Japan)	1,385	1,519	1,068	1,178	530	601	374	427	385	439
8. Total Domestic Wild SBT distributed in Japan = 6.+7.	9,232	10,124	7,120	7,852	3,536	4,009	2,494	2,849	2,564	2,929
9. Total Domestic Wild SBT distributed in Japan (Converted to WW) 8. x 1.15	10,616	11,642	8,188	9,030	4,066	4,611	2,868	3,276	2,949	3,368
10. Domestic Exported Frozen SBT (Converted to WW) Exports (MW) x 1.15 (Source: Japan Ministry of Finance, trade data)	70	70	77	77	30	30	0	0	0	0
11. Total Domestic Caught SBT distributed in Japanese and Exporter (WW) = 9.+10.	10,686	11,712	8,265	9,107	4,096	4,641	2,868	3,276	2,949	3,368

### Attachment 3 Yaizu and Tokyo Market Frozen SBT Auction

#### Yaizu Frozen SBT (Auction)

(unit: Kg)

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
2004	84,965	100,823	133,053	112,620	75,333	66,423	94,648	78,944	109,822	138,602	125,706	167,666	1,288,605
2005	69,898	70,576	108,630	84,219	51,920	66,438	66,221	56,053	60,735	95,434	87,602	128,002	945,728
2006	71,379	71,401	82,238	78,723	51,562	39,719	47,837	41,555	47,116	56,012	76,136	92,402	756,080
2007	33,092	29,984	53,413	43,905	42,503	39,023	50,335	39,287	31,793	46,552	80,777	84,657	575,321
2008	44,755	36,282	46,292	37,778	36,068	49,505	54,830	45,896	35,030	49,053	76,778	100,567	612,833
2009	33,892	38,667	64,261	51,799	34,372	34,150							

Source: <http://www.yaizu-gyokyo.or.jp>

Yaizu Auction sale in 2008
Jan-Jun (A) Jul-Dec (B) B/A
250,680 362,154 1.44468645

Yaizu Auction sale
Jan-Jun 2009
257,141 (kg)

Est. Yaizu Auction
Jul - Dec 2009
371,488 (kg)

Est. Total Yaizu Auction in 2009
628,629 (kg)

#### Tokyo Market Frozen SBT (Auctioned)

Metric Ton

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
2004	668	685	874	903	657	601	659	677	635	694	603	948	8,604
2005	527	571	853	728	659	575	564	530	517	555	642	927	7,648
2006	528	567	741	609	520	567	537	498	520	491	497	643	6,722
2007	357	375	521	429	410	326	337	361	298	308	328	492	4,543
2008	245	288	356	313	274	247	309	267	353	388	342	590	3,974
2009	296	324	369	368	325	335							

Source: <http://www.shijou.metro.tokyo.jp>

Tokyo Auction sale in 2008
Jan-Jun (A) Jul-Dec (B) B/A
1,723 2,249 1.30528149

Tokyo Auction sale
Jan-Jun 2009
2,017 (MT)

Est. Tokyo Auction
Jul - Dec 2009
2,633 (MT)

Est. Total Tokyo Auction in 2009
4,650 (MT)

## Attachment 4

Ratio of domestic (Japanese) and imported wild SBT at Tsukiji Market (Kg)

Month of survey	Domestic (Japanese) SBT	Imported SBT			Total	Percentage		
		Korea	Philippine	Taiwan		Domestic	Imported	
2007 Dec	11,296.6	2,288.4	113.8	686.4	1,488.2	13,585.0	83.15%	16.85%
2008 Jan	6,112.0	2,191.4	1,771.2		420.2	8,303.4	73.61%	26.39%
Feb	7,272.8	1,815.0	1,488.0		327.0	9,087.8	80.03%	19.97%
Mar	6,702.2	3,164.8	1,840.0	217.0	1,107.8	9,867.0	67.93%	32.07%
Apr	5,825.0	2,485.2	1,277.4	898.8	309.0	8,310.2	70.09%	29.91%
May	5,961.0	1,207.6	877.2	330.4		7,168.6	83.15%	16.85%
Jun	3,677.8	3,744.1	2,255.5	457.0	1,031.6	7,421.9	49.55%	50.45%
Jul	5,995.4	3,313.2	2,575.6		737.6	9,308.6	64.41%	35.59%
Aug	6,806.8	2,817.8	1,948.0		869.8	9,624.6	70.72%	29.28%
Sep	8,946.2	3,921.8	3,921.8			12,868.0	69.52%	30.48%
Oct	9,901.4	4,303.8	3,610.2		693.6	14,205.2	69.70%	30.30%
Nov	7,452.8	5,390.6	2,498.8		2,891.8	12,843.4	58.03%	41.97%
Dec	13,538.0	4,312.6	2,010.2	451.0	1,851.4	17,850.6	75.84%	24.16%
2008 Jan-Dec Ave	7,349.3	3,222.3	2,172.8	470.8	1,024.0	10,571.6	69.52%	30.48%
2009 Jan	6,276.6	4,912.4	3,481.0		1,431.4	11,189.0	56.10%	43.90%
Feb	6,983.8	3,939.0	3,581.0		358.0	10,922.8	63.94%	36.06%
Mar	5,746.0	5,211.8	4,354.0		857.8	10,957.8	52.44%	47.56%
Apr	6,978.2	4,507.4	4,052.0		455.4	11,485.6	60.76%	39.24%
May	7,676.0	3,360.0	2,640.2		719.8	11,036.0	69.55%	30.45%
Jun	6,185.4	2,380.4	1,950.2		430.2	8,565.8	72.21%	27.79%
2009 Jan-May Ave	6,641.0	4,051.8	3,343.1	0.0	708.8	10,692.8	62.11%	37.89%

Source: Monthly monitoring of the Tsukiji Market

Note: Except for January 2009, the monitoring has been conducted on Friday, when volume of SBT handled by wholesalers is, in general, larger than other days of the week.

Year	Domestic	Imported
2005	95.00%	5.00%
2007	83.15%	16.85%
2008	69.52%	30.48%
2009	62.11%	37.89%
2006	87.98%	12.02%

JMR report  
Observed in Dec 2007  
Observed in 2008  
Observed from Jan-Jun 2009  
linear interpolation

## Attachment 5

### Time lag of Southern Bluefin Tuna caught by Japanese longline between catching and selling at Fish Market

Table 1 Number of SBT with the catch monitoring tag checked at Tsukiji market and their year of caught.

Date	2006 fishing season	2007 fishing season	2008 fishing season	Total
7-Dec-07	19	145		164
18-Jan-08	17	65		82
8-Feb-08	13	99		112
7-Mar-08	4	67		71
18-Apr-08	13	76		89
16-May-08	1	95		96
20-Jun-08	2	42		44
18-Jul-08	13	76		89
8-Aug-08	2	71		73
26-Sep-08		61	109	170
10-Oct-08	6	36	107	149
14-Nov-08	13	5	76	94
5-Dec-08	1	16	123	140
8-Jan-09		7	74	81
20-Feb-09		11	96	107
13-Mar-09		3	72	75
3-Apr-09		1	80	81
15-May-09	2	21	44	67
19-Jun-09			75	75

Table 2 Time lag between catch and sale at market in year (i) at Tsukiji by month.

Month	Catch in year (i-3)	Catch in year (i-2)	Catch in year (i-1)	Catch in year (i)
Jan.	0.0%	14.7%	85.3%	0.0%
Feb.	0.0%	10.9%	89.1%	0.0%
Mar.	0.0%	4.8%	95.2%	0.0%
Apr.	0.0%	7.9%	92.1%	0.0%
May	1.5%	16.2%	82.3%	0.0%
Jun.	0.0%	2.3%	97.7%	0.0%
Jul.	0.0%	14.6%	85.4%	0.0%
Aug.	0.0%	2.7%	97.3%	0.0%
Sep.	0.0%	0.0%	35.9%	64.1%
Oct.	0.0%	4.0%	24.2%	71.8%
Nov.	0.0%	13.8%	5.3%	80.9%
Dec.	0.0%	0.4%	11.5%	88.1%
<b>Average</b>	<b>0.1%</b>	<b>7.7%</b>	<b>66.8%</b>	<b>25.4%</b>

Source: Monthly monitoring of the Tsukiji Market

Note: Except for January 2009, the monitoring has been conducted on Friday, when volume of SBT handled by wholesalers is, in general, larger than other days of the week.